State of New Jersey
Department of Environmental Protection

Christine Todd Whitman
Governor

Robert C. Shinn, Jr.
Commissioner

DEC 21 2000

EPA's Dec 13th Comments were incorporated into this DEP Letter.

Mr. Cristopher Anderson
Director Environmental Affairs
L.E. Carpenter & Company
Suite 36-5000
200 Public Square
Cleveland, OH 44114

Dear Mr. Anderson:

Re: L.E. Carpenter Superfund Site
Wharton, Morris County

The New Jersey Department of Environmental Protection (Department) and EPA have reviewed the Work Plan for Delineating and Characterizing Elevated Lead Concentrations in Soil dated September 2000. The Department has no comments on the work plan; EPA's comments are as follows:

1. RMT, Inc. has done a fine job of compiling available historical data from a number of sources, to document extensive prior usage of the locality, both as an iron forge and iron mine. As the reference by Bayley identified that local iron was found to be associated with sulfur, then naturally occurring lead sulfides might also be expected to be found on-site. Therefore, the proposed mineralogical evaluation mentioned on pages 3 and 4, to determine the presence and relative contribution of naturally occurring lead is feasible, however, the document does not specify exactly how the comparison of naturally occurring lead to "elevated levels of lead in the site soil samples," will be conducted. The approach should be specified.

2. As with the work plan EPA previously reviewed addressing the focused feasibility study and free product issues, this document lacks many of the important details which are to be expected in an acceptable work plan that can be approved. EPA guidance on preparing a work plan should be consulted and a new work plan submitted that contains all of the relevant information. This is necessary to ensure both the quality of the data and that all parties involved can be satisfied that the work performed will achieve goals.

3. The April 1994 Record of Decision (ROD) specified excavation of soils that contain elevated levels of lead. However, during the excavations it was discovered that the extent of contamination was greater than anticipated. Therefore, a change in the remedial action may be proposed. Page 6 of the work plan notes that a human health risk assessment will be conducted to evaluate potential risks associated with direct contact and inhalation of lead. Please note that an ecological risk assessment should

also be included. Based upon previous data, it appears that elevated lead concentrations have been detected in the drainage ditch adjacent to the site and the Rockaway River. Therefore, these areas should also be incorporated into the risk assessment. Additionally, a determination should be made if any of the adjacent wetlands have been impacted. In order to comply with federal wetlands ARARs, a wetlands assessment and restoration plan would be needed for any wetlands impacted or disturbed by contamination and/or remedial activities. Management practices (Federal Register Volume 51, No. 219, Part 330.6) should be implemented.

Specific Comments

4. Previously collected surface soil samples are not indicated on the cited figure, therefore, it is not clear whether new samples are intended to be co-located with the test pits. If so, some of these points will produce redundant data. How many samples are included in the initial plan? Is there a plan for how far the additional delineation should step out from a contaminated sample? On what basis will it be determined that the delineation is complete? Will two samples be collected at each location as the text seems to imply by referencing "surface and near surface" samples? Are the depths of the samples tied to field observations or the risk assessment needs?

5. The work plan should specify how many subsurface samples are intended in each test pit. At what depth intervals will samples be collected? What will trigger the decision to stop sampling deeper?

6. Some areas where test pits are planned contain floating free product. The work plan should address whether product laden soils will likely be encountered, and if so, how they will be handled. It does not seem appropriate to dump encountered product or contamination back into the test pits. Please specify how and where soils will be stockpiled during excavation. What decontamination procedures will be used? In what order will the test pits be excavated? For areas where test pits are only to be sampled at deeper horizons, this needs to be clearly indicated and the intended sampling depths should be provided.

7. The maps should show where SPLP samples will be collected. At least three samples from the stockpiles and three from the other areas should be run to determine how results may vary.

8. The work plan should specify how many samples will be collected at each of the background locations. At what specific depths will the samples be taken? What is the justification behind the number and depths of samples?

9. Regarding ground water sampling, it seems prudent to include wells which are likely to have background levels, as well as wells which are directly downgradient. The work plan should give a tabulated list of the wells including information on where each is screened and figures showing any historical lead data. Even if this information is found in previous reports, it should be compiled and included so as to

provide background information as well as justification for this part of the project. This information will also be helpful if project personnel change in the future, and will help provide for project continuity.

10. The work plan should state what laboratory analytical methods are being proposed for the soils and ground water samples.

11. Regarding laboratory confirmation samples, the work plan should specify how these samples will be selected so as to ensure that the range of lab samples includes high and low levels of lead.

12. The one paragraph description relating to how a risk assessment will be conducted is not adequate. For example, the sampling plan and overall focused feasibility study may need to be guided by the specific requirements of the lead risk model to be used.

13. The work plan correctly references the adult lead model as the appropriate tool by which to measure impacts to an adult worker population. As a note, the model and guidance documents can be found at:
http://www.epa.gov/oerrpage/superfund/programs/lead/prods.htm.

14. It is stated that potential risk to adult workers will be characterized using "...site-specific parameters and total lead concentrations." The work plan should clearly identify which default parameters will be replaced with site-specific values (e.g., geometric standard deviation, blood lead concentration, intake rates for various media, exposure duration, etc.). In addition, the work plan should state how these site-specific data will be collected, and should verify that the databases for these site-specific values will be sufficient to allow for substitution into the model.

15. The work plan states that lead concentrations will be determined by a combination of XRF and laboratory analysis. Data that will be used in the adult lead model and the risk assessment should meet the appropriate QA/QC requirements. The sampling plan should be developed so that a statistically appropriate number of samples are collected and analyzed using the necessary analytical methods and validation procedures.

16. The work plan should mention that additional remedial options will be considered if circumstances prevent a soil or asphalt capping remedy from being carried out.

17. Regarding background sampling, the work plan should outline how the sample locations were selected. In addition, it does not seem appropriate to collect samples from areas proximal to the historical mine entrances and call them "background." The work plan should clearly specify that there are two kinds of samples to be taken a) samples which represent soils that may have been impacted by mining and b) samples which are representative of true background. Both types of sample locations should be clearly identified and labeled on the map. Sample depths should also be explained and justified, for example, non-indigenous material, or imported fill might

be evident down to a certain depth, etc. As mentioned above, EPA's risk assessor may have specific comments relevant to the collection of "background" samples, which will be provided in the near future. The map shows that the off-site Orchard Mine was located immediately across Rockaway River. It would seem to help make a better case for naturally occurring lead on-site to make a comparison to levels found near known similar off-site operations. Therefore it is recommended that two samples be collected from the vicinity of the Orchard Mine complex.

18. No sampling is indicated to delineate lead levels proximal to the high levels found at GPC-15. Is this an oversight? Please explain.

Please feel free to contact me at (609) 633-7261 if you have any questions.

Sincerely,

Gwen B Zervas

Gwen B. Zervas, P.E.
Case Manager
Bureau of Case Management

C: Stephen Cipot, EPA
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